Date: Tue, 22 Feb 94 04:30:22 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #42
To: Ham-Ant

Ham-Ant Digest Tue, 22 Feb 94 Volume 94 : Issue 42

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: Mon, 21 Feb 1994 05:55:22 GMT
From: wintermute.fullerton.edu!ihnp4.ucsd.edu!sdd.hp.com!hpscit.sc.hp.com!
news.dtc.hp.com!srgenprp!alanb@network.ucsd.edu
Subject: Antenna gain: dB,dBi,dBic ??
To: ham-ant@ucsd.edu

Cecil Moore (kg7bk@indirect.com) wrote:

: ... The gain of a half-wave
: dipole in free space is 2.14 dBi and when an antenna gain is specified
: in dBd it is usually the gain over a dipole in free space. But don't
: expect your antenna to be that much better than your trusty dipole. A
: half-wave dipole at a reasonable height over a reasonable ground has a
: gain of around 7 dBi or around 5 dBd. ...

A reputable antenna manufacturer will compare apples to apples. It is
always assumed that if you specify dBd you are comparing the antenna under
test to a dipole mounted at the same location.

AL N1AL

Date: Mon, 21 Feb 1994 06:00:02 GMT
From: wintermute.fullerton.edu!ihnp4.ucsd.edu!sdd.hp.com!caen!math.ohio-state.edu!
magnus.acs.ohio-state.edu!csn!col.hp.com!srgenprp!alanb@network.ucsd.edu
Subject: Homemade balun, unknown toroid material. Help!
To: ham-ant@ucsd.edu

asirene@ntuvax.ntu.ac.sg (asirene@ntuvax.ntu.ac.sg) wrote:

: I just made a 1:1 current balun for use at the feed point of my
: 20 meter dipole fed from a RG-58. The problem us is that the toroid
: I used was unmarked so I do not know the actual effect of the "balun".
: Is there a way to test the balun? Or should I eliminate it
: altogether. What kind of effect will the balun (with ot without)
: have on my transmission and reception?

I assume you made the balun by wrapping your coax a number of times
through the toroid core. You would get some balun action even if the
core had no magnetic properties whatever. In fact, some people
habitually make "air baluns" by simply winding several turns of coax
in a loop. I wouldn't worry too much about it -- it can't hurt and
it probably is giving you at least some balun action.

AL N1AL

Date: Mon, 21 Feb 1994 23:49:50 GMT
From: agate!msuinfo!netnews.upenn.edu!netnews.cc.lehigh.edu!ns1.cc.lehigh.edu!
c002@network.ucsd.edu
Subject: INFO NEEDED: on 11m beams
To: ham-ant@ucsd.edu

I forget if i did this already..buuuuut:
I need the formulas <element size, elemet spaceing> for a 3 element
11meter BEAM antenna....with maybe somekind of match..IF NEEDED...for
i hate matches!

Thanks!

DAvid
--

:)**(:
**   ** The Flying HAm   **
**   David Roseman   ** c002@lehigh.edu   **
**   ** Crossbow@rushnet.com   **
**   **   **
**   Cole's Law: ** Les Boules Qui Roulet **

Date: 21 Feb 1994 10:53:58 GMT
From: agate!howland.reston.ans.net!pipex!doc.ic.ac.uk!bright.ecs.soton.ac.uk!
pdh@ames.arpa
Subject: Longwire design?
To: ham-ant@ucsd.edu

In <CLHKyt.55u@news.direct.net> kg7bk@indirect.com (Cecil Moore) writes:

>Kenneth E. Harker (Kenneth.E.Harker@Dartmouth.Edu) wrote:
>: I'm looking to build a rather simple longwire antenna. I intend to
>: use it initially for SWL on 31m, and ... use it for QRP CW on 40m.
>: Kenneth E. Harker N1PVB

>Hi Kenneth, In my opinion, a 40m quarter-wave end-fed antenna would
>fulfill your needs. Length is usually not a big deal on a receiving
>antenna. Make the antenna a little too long and trim for minimum SWR.
>Use a short length of coax from your rig to a choke and tie the other
>side of the choke to the center conductor to the antenna. Either build
>or buy a choke if you don't want "rf-in-the-shack". An antenna tuner
>may not be required but is a good idea for 50-ohm fixed output rigs.

Just my $0.02 worth....
I have used a longwire for QRP work on HF and I think basically all
you need is as much wire as possible, as high as possible and let
the tuner do the work. I used a roller-coaster inductor and a
differential capacitor and that tuned my longwire on all bands
80m-10m. Also, if you trim a quarter-wave to resonance, the current
node will be right at the back of the station, coming out of the
tuner. That may not be where you want it :-)

Peter Harris
G4BDQ

--
[] Peter Harris, Optoelectronics Network Supervisor, Southampton University []
           "Sir, you will either die on the gallows or of the pox !"

"That, my Lord, depends on whether I embrace your principles or your mistress"
John Wilkes to The Earl of Sandwich, Parliament, November 1763

Date: Mon, 21 Feb 1994 12:52:21 GMT
From: agate!howland.reston.ans.net!pipex!sunic!trane.uninett.no!news.eunet.no!nuug!news.eunet.fi!news.funet.fi!aton.abo.fi!usenet@ames.arpa
Subject: Longwire design?
To: ham-ant@ucsd.edu

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> Kenneth E. Harker (Kenneth.E.Harker@Dartmouth.Edu) wrote:
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> : Kenneth E. Harker N1PVB
>
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> side of the choke to the center conductor to the antenna. Either build
> or buy a choke if you don't want "rf-in-the-shack". An antenna tuner
> may not be required but is a good idea for 50-ohm fixed output rigs.
>
> 73, Cecil, kg7bk@indirect.com
>

I have used such 1/4 wave longwire for QRP on 80...10 meters.
Longwire is very handy for portable operation as well, because
only one end of antenna is high up (don't need to find two
trees etc.) Tuner is needed, especially if one wants to work
other bands with the same antenna. The only exception might be
21MHz band with 7 MHz 1/4-wave antenna... By the way, has anyone
ever tried traps in a quarterwave longwire? Sort of a trap vertical?
I have been thinking of trying such longwire when camping next

summer... 10 or 15 meter antennas would perhaps be too short and
almost on the gournd, but 80/40/20 operation should be possible
without tuner...

One thing often overlooked is the need for proper grounding
system. Good RF gound, and maybe a 1/4 wavelenght "radial" is
needed with all end-fed type antennas.

73 Mike OH1NZQ @ OH1RBU.FIN.EU

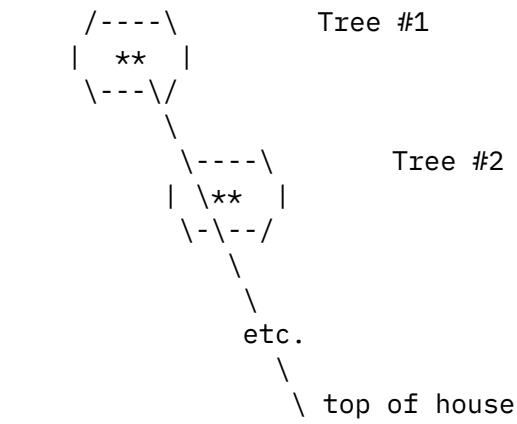
Date: Mon, 21 Feb 1994 14:10:47 +0000
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!pipex!demon!abacus!
dmb@ames.arpa
Subject: The problem with trees ...
To: ham-ant@ucsd.edu

I'm about to string an outdoor antenna now that the spring is here, and the garden is less of a quagmire than it has been for the last few months !

I'll be putting up some sort of random wire/windom with ATU, for general coverage.

However, there are a couple of options open to me. I can run it from the top of the house (~30 feet high) down to a short (7') pole at the bottom of the garden, which gives me about 60 feet of antenna, OR I can take it from the house top diagonally across to a tree, which increases the length to about 75 feet, assuming string/insulator at each end, and also puts the wire horizontal (around 30 feet up at the tree end).

However, this second option means running the antenna through a second tree...



The antenna would be clear of the branches of Tree #2, unless there's wind around. Most of the time, this will lead to branches rubbing off it, in extreme cases I suppose it could foul it up completely ...

My questions are:

a) if I use insulated wire, will this branch rubbing cause extra noise (if un-insulated what difference will this make ?)

b) is the extra height & length from the second option worthwhile ?

I'll probably end up trying both options and seeing which works best, but

any ideas would be appreciated.

-David.
--
David Byrne, Abacus Software, London, UK Tel: +44 71 930 4884
Email: dmb@abacus.demon.co.uk Fax: +44 71 839 7445
Here's a koan: If you have ice-cream I will give you some. If you have none,
I will take it away from you. (it's an ice-cream koan).

End of Ham-Ant Digest V94 #42
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